Attorney Docket No.: 50623.00067

PATENT

AMENDMENTS TO THE SPECIFICATION:

After the paragraph that begins on page 5, line 1, of the specification please insert the following paragraphs:

Heparin derivatives described in U. S. Patent 5,069,899 include the following aromatic ammonium ions: benazalkonium, cetypyrridinium, benzyl dimethyl stearyl ammonium. Heparin derivatives describe in U.S. Patent 3,844,989 include the following aromatic ammonium ions: those containing vinyl pyridines, ions containing vinyl pyridine and a benzyl group, and a class of alkyl aryl ammonium ion containing a C1-C18 aryl group. Heparin derivatives described in U. S. Patent 3,846,353 include the following ammonium ions: tridodecy benzyl ammonium cations. Heparin derivatives described in U. S. Patent 3,865,723 include the following ammonium ions: toluidine blue (polyaromatic rings). Heparin derivatives described in U. S. Patent 3,506,642 include ammonium ions sourced from the following bases: imidazole, pyridine, 3-amino-cinnoline, 2-amino thiazole, purine, 4-ureidosulphonylaniline, 2-ethoxycarbonyl aniline, 3amino 2-amino-4,6-dimethylpteridine, 2-amino-6.7biphenyl. dimethylpteridine, 2-aminoquinoxaline, 2,3-diaminoquinoxaline, triazole, 2-amino pyrimidine, 5-amino-4-methyl pyridine, 1-phenyl pyrrolidine, methylindanyl amino indane, N-methyl-1,4-benzoquinone imine, 1,4benzoquinone imine, N-benzyl-1,4-benzoquinone imine, Thioflavine T, Nmethyl cytidine, biliverdine, and Rhodamine B.

Heparin derivatives described in U. S. Patent 5,013,717 comprise an alkylammonium salt with the structure shown below,

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$$R_1$$
 R_1
 R_3
 R_4

wherein R₁ may be selected from the group consisting of an alkyl group of about 7 to 18 carbon atoms and R₂, R₃, and R₄ may independently be selected from the group consisting of hydrogen, an alkyl group of 1 to 18 carbon atoms, and an aralkyl group of 7 to 18 carbon atoms.

Heparin derivatives described in U. S. Patent 5,322.659 include ammonium ions with the formula shown below wherein R₁, R₂, R₃, and R₄ may independently be methyl, phenyl, benzyl or phenyl and benzyl substituted with a halogen, vinyl or 1-4-carbon alkyl group.

$$\begin{array}{c|c}
R_2 \\
\vdots \\
R_1 \longrightarrow N \longrightarrow R_3 \\
\vdots \\
R_4
\end{array}$$

Heparin derivatives described in U. S. Patent 5,322,659 also include ammonium ions such as benzyltrimethylammonium chloride, p-chlorobenzyltrimethylammonium bromide, benzyl-vinylbenzyldimethylammonium chloride, dibenzylmethyl-vinylbenzylammonium chloride, tetraphenylammonium chloride, dibenzyldimethylammonium chloride, butyl benzyl-trimethylammonium chloride, tribenzylmethylammonium bromide and the like.